

OCT 07 2004

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Malone et al.

Art Unit: 2811

Serial No.: 10/028,015

Examiner: Gebremariam, Samuel A.

Filed: 21 December 2001


Docket No. TI-29277

For: LOW COST FEATURE TO INDICATE PACKAGE ORIENTATION

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

7 October 2004

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	7 Oct 2004
Charles A. Brill	Date

Dear Sir:

The following Appeal Brief is respectfully submitted in connection with the above-identified application in response to the Final Rejection mailed 8 April 2004, and the Advisory Action mailed 25 August 2004. Please charge all required fees, including any extension of time fees, to the deposit account of Texas Instruments Incorporated, Deposit Account No. 20-0668.

**REAL PARTY IN INTEREST**

The real party in interest is Texas Instruments Incorporated, to whom this application is assigned.

### **RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences known to the Applicant's legal representative.

### **STATUS OF THE CLAIMS**

Claims 1-9 have been rejected and are the subject of this appeal. Claims 10-19 have been withdrawn as directed to a non-elected invention.

### **STATUS OF THE AMENDMENTS**

A response after the final rejection was submitted, but did not amend any of the claims.

### **SUMMARY OF CLAIMED SUBJECT MATTER**

Lines 2-14 of page 12 provide a concise explanation of the invention defined in the appealed claims. As described in the background of the invention section from line 7 to line 21 on page 1, it is common place to form some sort of indicia on an integrated circuit package to indicate the location of pin 1 of the package. The pin 1 indicator helps prevent the integrated circuit from being installed improperly in the next assembly.

One embodiment of the present claimed invention comprises a lower portion of a package, an intermediate metalization layer on a top surface of the lower portion, and an upper portion of the package on the top surface of the lower portion. A corner portion of the intermediate metalization layer remains visible beyond the extent of the upper portion for indicating an orientation of the substrate.

### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

1. Whether Claims 1 and 3-8 are anticipated under 35 U.S.C. § 102 (b) by U.S. Patent No. 5,153,379 to Guzik *et al.* ("Guzik").
2. Whether Claims 1 and 2 are anticipated under 35 U.S.C. § 102 (b) by U.S. Patent No. 6,037,698 to Ueda *et al.* ("Ueda").
3. Whether Claim 9 is unpatentable under 35 U.S.C. § 103 (a) over Guzik.

### **ARGUMENT**

#### **Ground of Rejection 1:**

Claim 1 was rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 5,153,379 to Guzik *et al.* ("Guzik"). The applicant respectfully disagrees and submits the Examiner has failed to present a prima facie case of anticipation.

"A person shall be entitled to a patent unless," creates an initial presumption of patentability in favor of the applicant. 35 U.S.C. § 102. "We think the precise language of 35 U.S.C. § 102 that, "a person shall be entitled to a patent unless," concerning novelty and unobviousness, clearly places a burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103, see *Graham and Adams*." *In re Warner*, 379 F.2d 1011, 1016 (C.C.P.A. 1967) (referencing *Graham v. John Deere Co.*, 383 U.S. 1 (1966) and *United States v. Adams*, 383 U.S. 39 (1966)). "As adapted to *ex parte* procedure, *Graham* is interpreted as continuing to place the 'burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103'." *In re Piasecki*, 745 F.2d 1468 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d at 1016).

“The *prima facie* case is a procedural tool which, as used in patent examination (as by courts in general), means not only that the evidence of the prior art would reasonably allow the conclusion the examiner seeks, but also that the prior art compels such a conclusion if the applicant produces no evidence or argument to rebut it.” *In re Spada*, 911 F.2d 705, 708 n.3 (Fed. Cir. 1990).

The applicant respectfully submits the Examiner has failed to meet the burden of proof required to establish a *prima facie* case of anticipation. Section 2131 of the Manual of Patent Examiner’s Procedure provides:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053, (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as in the claim under review. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

With respect to independent claim 1, Guzuk does not show, teach, or suggest “a corner portion of said intermediate metallization layer remaining visible beyond the extent of said upper portion for *indicating an orientation of said substrate*” (emphasis added). The claimed limitations result in a structural difference between the claimed invention and the prior art and patentably distinguish the present invention from the structure of Guzak

The Examiner stated, “Guzuk teaches . . . a corner portion of the intermediate metallization (114) layer remaining visible beyond the extent of the upper portion (104)

for indicating an orientation of said substrate.” Reference to Figure 4a of Guzuk clearly shows the intermediate metallization layer of Guzuk does not indicate “an orientation of said substrate” as recited by Claim 1. To the contrary, each corner of Guzuk’s package looks identical and therefore fails to indicate the orientation of the package.

Furthermore, the Examiner has not cited any teaching of Guzuk that suggests the metallization layer indicates orientation of the substrate. Guzuk teaches ground pads (114) “which act as metal anchors for metallized shield 102.” The Examiner’s rejection therefore is unsupported by the prior art, fails to establish a prima facie case of anticipation, and should be withdrawn.

Ground of Rejection 2:

Claim 1 was rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 6,037,698 to Ueda *et al.* (“Ueda”). The applicant respectfully disagrees and submits the Examiner has failed to present a prima facie case of anticipation.

The Examiner stated, “Ueda teaches . . . a corner portion of the intermediate metallization (53) layer remaining visible beyond the extend of the upper portion (6) for indicating an orientation of the substrate.”

The applicant submits Ueda teaches an acoustic surface wave package in which “the metallic cap is electrically connected to one of the ground terminal of the input terminal and the ground terminal of the output terminal.” (abstract) The metallization (53) the Examiner is referring to is a cap connecting pattern on the surface of substrate (5). Various additional cap connecting patterns on additional layers electrically connect this cap connecting pattern (53) to the package lid. Ueda describes the connecting pattern (53), shown in Figures 15 and 21, in lines 54-61 of column 10. Figures 5A, 5B, 12, 14,

and 19 of Ueda show the completed package, it is clear from these figures that Ueda does not show, teach, or suggest "an intermediate metallization layer on a top surface of said lower portion . . . remaining visible beyond the extent of said upper portion for indicating an orientation of said substrate" as recited by Claim 1.

As the Examiner has not cited any teaching of Ueda that suggests "an intermediate metallization layer on a top surface of said lower portion . . . remaining visible beyond the extent of said upper portion for indicating an orientation of said substrate," the Examiner's rejection therefore is unsupported by the prior art, fails to establish a prima facie case of anticipation, and should be withdrawn.

**Ground of Rejection 3:**

Claim 9 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Guzik. The applicant respectfully disagrees and submits the Examiner has failed to present a prima facie case of obviousness.

Claim 9 depends from Claim 1 and should be deemed allowable for that reason and on its own merits. As argued above with respect to Claim 1, Guzik does not show, teach, or suggest the limitations of Claim 1, much less the limitations of Claim 1 in combination with the additional limitations of Claim 9.

**CONCLUSION**

For the foregoing reasons, Appellants respectfully submit that the Examiner's final rejection of Claims 1-9 is improper, and it is respectfully requested that the Board of Patent Appeals and Interferences so find and reverse the Examiner's rejection.

Please charge any fees necessary in connection with the filing of this paper,  
including any necessary extension of time fees, to Deposit Account No. 20-0668 of Texas  
Instruments Incorporated.

Respectfully submitted,



Charles A. Brill  
Attorney for Applicant  
Reg. No. 37,786

Texas Instruments Incorporated  
P.O. Box 655474 M/S 399  
Dallas, TX 75265  
(972) 917-4379  
FAX: (972) 917-3511

**CLAIMS APPENDIX**

1. (Original) A substrate for a device package comprising:
  - a lower portion of a package;
  - an intermediate metalization layer on a top surface of said lower portion;
  - an upper portion of said package on said top surface of said lower portion,
  - a corner portion of said intermediate metalization layer remaining visible beyond the extent of said upper portion for indicating an orientation of said substrate.
2. (Original) The substrate of Claim 1, said lower and upper portions comprising a ceramic.
3. (Original) The substrate of Claim 1, said lower portion comprising a layered ceramic portion containing electrical interconnections.
4. (Original) The substrate of Claim 1, said visible corner portion comprising a plating on said visible corner portion.
5. (Original) The substrate of Claim 1, comprising an electrical device electrically connected to portions of said metalization layer.
6. (Original) The substrate of Claim 1, comprising an electrical device electrically connected to portions of said metalization layer, said visible corner portion electrically isolated from said portions of said metalization layer electrically connected to said device.
7. (Original) The substrate of Claim 1, comprising an electrical device and a lid enclosing said device between said lid and said substrate.



8. (Original) The substrate of Claim 1, said upper portion having a void over said visible corner region of said metalization layer, said void allowing visibility to said metalization layer.
9. (Original) The substrate of Claim 8, said void used to mechanically position said substrate.
10. (Withdrawn) A method of forming a device package comprising:
  - providing a lower portion of a package;
  - providing an intermediate metalization layer on a top surface of said lower portion;
  - providing an upper portion of said package on said top surface of said lower portion, a corner portion of said intermediate metalization layer remaining visible beyond the extent of said upper portion for indicating an orientation of said substrate.
11. (Withdrawn) The method of Claim 10, said providing a lower portion comprising providing a lower ceramic portion.
12. (Withdrawn) The method of Claim 10, said providing an upper portion comprising providing an upper ceramic portion.
13. (Withdrawn) The method of Claim 10, said providing a lower portion comprising providing a layered ceramic portion containing electrical interconnections.
14. (Withdrawn) The method of Claim 10, comprising plating said visible corner portion.

15. (Withdrawn) The method of Claim 10, comprising attaching a device to said substrate and electrically connecting portions of said metalization layer to said device.
16. (Withdrawn) The method of Claim 11, comprising electrically isolating said visible corner portion from portions of said metalization layer electrically connected to said device.
17. (Withdrawn) The method of Claim 10, comprising a lid enclosing said device between said lid and said substrate.
18. (Withdrawn) The method of Claim 10, said providing an upper portion comprising providing an upper portion having a void over said visible corner region of said metalization layer, said void allowing visibility to said metalization layer.
19. (Withdrawn) The method of Claim 18, comprising using said void to mechanically position said substrate.